



Montana Department of  
**ENVIRONMENTAL QUALITY**

Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • [www.deq.mt.gov](http://www.deq.mt.gov)

November 4, 2011

Steven A. Petrin  
Stimson Lumber Company  
700 Pacific Building  
520 SW Yamhill Street  
Portland, OR 97204

**RE: Final On-Site Repository Work Plan Approval**

Dear Mr. Petrin:

On Oct. 26, 2011, Stimson Lumber received a letter and signed copy of the DEQ Interim Action Memorandum Amendment regarding Stimson Bonner Mill Cooling Pond Project. In the letter, DEQ allowed Stimson to modify the work in the original work plan and clarified other terms and conditions for completing the project work. Also on Oct. 26, 2011, Stimson received DEQ verbal approval, followed by an email, to begin work and prevent any further delays to the project before the onset of winter.

This letter now provides Stimson Lumber with the DEQ written approval of the On-Site Repository Construction Work Plan. A copy of the final work plan and drawings, approved by DEQ, is attached to this approval letter.

It should be noted, that the final design details, including the final cover design, may be modified as required by DEQ. DEQ may consider additional comments from EPA Region 8 or others in specifying the final design details.

In addition, all other terms and conditions stated in the Administrative Order on Consent, the original Final Cooling Pond Removal Work Plan, Final Design Proposal and Addendum A to the Design Plan are still in effect at this time.

Please free to call me if questions arise about this letter or the work plan and drawings attached.

Respectfully yours,

A handwritten signature in black ink, consisting of three vertical strokes followed by a horizontal stroke that curves upwards and to the right.

Keith Large  
Project Officer  
Remediation Division

cc     Richard Oppen, Director, DEQ  
         Bill Kirley, DEQ Legal  
         Doug Martin, DOJ-NRD  
         Rob Collins, DOJ-NRD  
         Jeff Webber, Stimson Lumber Co.  
         Max Miller, Jr., Tonkon Torp LLC

# **Stimson Lumber – Bonner Mill On-Site Repository Construction Work Plan**

## **Bonner Mill Bonner, Montana**

*Submitted to:*

**Montana Department of Environmental Quality**  
1100 North Last Chance Gulch  
Helena, Montana 59620

*Submitted by:*

**Stimson Lumber Company**  
520 SW Yamhill, Suite 700  
Portland, OR 97204

*Prepared by:*

**Envirocon, Inc.**  
101 International Drive  
Missoula, MT 59808

*Revised by:*

**Stimson Lumber Company**

November 2, 2011

## **Introduction**

This document is intended to supplement the approved Final Cooling Pond Removal Work Plan (Envirocon) dated January 29, 2010 (Work Plan), and presents Stimson Lumber Company's (Stimson's) proposal for expansion of an existing on-site repository (the DEQ approved Kilns Area Repository) to isolate and store low-level PCB-impacted materials currently staged in stockpiles on the eastern end of the Bonner facility. The material has been sampled and contains concentrations of PCBs between 0.43 and 10 ppm.

This plan also replaces the draft work plan submitted on 6 September 2011. Due to concerns raised by DEQ and the County, Stimson has abandoned the concept and other earlier drafts of using the West Log Processing Area or the East Log Processing Area as repository areas.

Plan view diagrams for the repository with elevation contours are included with this work plan.

## **Scope of Work**

Work tasks required to execute this work plan include:

- Mobilization to the site
- Plug and sampling existing stormwater dry wells
- Transport impacted materials
- Dust Control
- Place & compact impacted materials
- Create repository cap
- Create vegetative cap
- Repository perimeter fencing
- Repository Monitoring Wells, Stormwater Control Ditch and Berm
- Confirmation Sampling beneath stockpiles
- Baseline sampling of stormwater runoff ditch and dry wells
- Long-Term Operation and Maintenance Plan for the On-Site Repository

Each of these tasks is discussed in the following sections.

### **1.0 Mobilization**

Envirocon Inc., Stimson's DEQ-approved contractor, will mobilize to the site to conduct the work and build the repository. Mobilization will include project staff and equipment operators. The following equipment is anticipated: 1 water truck, 1 front-end loader or large excavator, 2 to 3 articulated dump trucks, 1 bulldozer, 1 sheep's-foot roller, and 1 grader. The equipment will be mobilized as needed on-site. An office trailer may be

required if the work is to be conducted during cold weather. The construction project safety officer will inspect arriving equipment for operability and cleanliness.

## **2.0 Plug and Sampling Existing Stormwater Dry Wells**

There are two stormwater dry wells located on the north-east end of the proposed expanded repository area as indicated on the drawing. The two dry wells located in the repository area that will be covered with waste will be plugged before the waste is placed over them and will be sampled for PCBs before the plugs are installed. Two samples from each dry well will be collected, one sample for Stimson and one for DEQ. Samples from the dry wells shall be submitted to the lab for PCB analysis; the other samples shall be archived. All sampling shall follow the requirements and protocols listed in the SAP.

The dry wells will be plugged consistent with the new site-wide SWPP plan being implemented, with flow-able fill material approved by DEQ. The plug will be inspected by DEQ before waste is placed over the top of the former dry wells.

## **3.0 Transport Materials**

Stockpiled materials will be loaded into articulated dump trucks using a front-end loader or a large excavator. If needed, water will be sprayed onto the disturbed portion of the stockpile during loading operations to reduce or eliminate dust. A single haul road loop will be used by the transport trucks to limit site cross-contamination.

## **4.0 Dust Control**

Dust will be controlled during Project construction activities using water provided from a dedicated water truck. The water truck will wet haul roads periodically, as needed, to eliminate dust without producing significant mud. In addition, water will be sprayed onto the disturbed portion of the stockpile during loading operations to control dust, again as needed to maintain the zero dust policy stated in the Health and Safety Plan.

## **5.0 Place & Compact Materials**

The transported materials will be dumped within the repositories by the dump trucks. A dozer will level and spread the placed material into 1-foot thick lifts, and compact the material using either the dozer or a combination of the dozer and a sheep's-foot roller. Compaction of the materials will be achieved by 3 consecutive passes of the dozer or the sheep's-foot roller. Density testing will not be employed; rather the initial lift thickness and number of consecutive equipment passes will be adjusted, as necessary, to provide acceptable compaction, thereby increasing the mass of stored material and reducing the finished height of the repository.

All of the contaminated stockpiled materials will go to the expanded Kiln Repository area. Approximately 37,000 cubic yards of material will be compacted and graded to

approximately 32,000 cubic yards. A two-foot cap of clean materials will be placed on top of the contaminated materials.

## 6.0 Create Repository Cap

A 2-foot thick cap of clean materials will be created for the repository and the top six inches of the cap will be topsoil/vegetative quality soils or 'growth media'. The cap will not be completed until the confirmation sampling (stated below) is completed and confirms that all of the PCB waste from the stockpiled areas and roadways has been moved to the repository.

Adequate capping materials are assumed to be available in the eastern stockpile area. That material will be used to construct the clean, 2-foot thick cap. If there is not enough material in the eastern stockpile area, clean materials from off-site will be imported to complete the cap.

## 7.0 Create Vegetative Cap

Once all of the stockpiled material to be placed in the repository has been transported, placed, and compacted, an inspection will be requested of the DEQ Project Manager. After the final surface has been approved by DEQ, a subcontractor will be mobilized to the site and will hydro-seed the repository surface. Approximately 16 pounds live seed per acre will be applied. The planned seed mixture is listed below; however the species and ratios may vary, depending on availability.

Plant Species	Seeding Rate [PLS lbs/acre]
<b>Slender wheatgrass</b>	5
Sheep fescue	2
Idaho fescue	2
Mountain brome	6
Prairie junegrass	0.2
Common yarrow	0.1
Fireweed	0.05
Blue flax	1
(Sterile Barley or Rye cover crop)	(25)
<b>TOTAL [LBS/ACRE]</b>	<b>16.35 + BARLEY OR RYE</b>

Seeding will be accomplished between October 20 and November 15 or in the spring between April 1 and May 15, 2012.

## 8.0 Repository Perimeter Fencing

The repository will have a fence, approved by DEQ, installed around the perimeter of the repository to help protect the vegetative cap.



### **9.0 Repository Monitoring Wells, Stormwater Control Ditch and Berm**

Three repository groundwater monitoring wells will be installed down gradient of the repository and no more than 60 feet from the perimeter of the repository. Location of the wells will be determined by DEQ.

Stimson will build a stormwater control ditch and berm around the repository to divert stormwater away from the repository and to shed excess rainwater from the cap. The ditch will be lined with the appropriate sized rock, approved by DEQ, to prevent erosion of the ditch. The ditch will be build to convey the water into pre-existing dry wells, as indicated on the drawings attached.

### **10.0 Confirmation Sampling Beneath Stockpiles**

Surface soil confirmation samples will be collected of the ground surface that had been overlain by the impacted stockpiles addressed by this work plan, after the stockpiles have been relocated to the repository. Composite confirmation soil samples will be collected in accordance with the SAP. Each submitted soil sample will be composed of 5 sub-composites collected in a cross-pattern from within an approximately 9-meter grid pattern. The subcomposite samples will be mixed together using decontaminated stainless-steel or disposable implements, and the sampling technician will wear disposable gloves. Samples will be placed on ice in a cooler, chain-of-custodies completed and enclosed, and shipped to Energy Labs of Billings for PCB analysis by EPA Method SW-8082.

### **11.0 Baseline Sampling of Stormwater Runoff Ditch and Dry Wells**

The repository stormwater ditch and receiving dry wells will be sampled for PCBs to establish baseline data. Once the ditch is excavated to the proper elevation to achieve drainage, and before the erosion control rock is placed in the ditch, the ditch and the any dry wells that will receive the stormwater shall be sampled for PCBs. Two samples from each side of the repository and one sample from the sediments at the bottom of the dry wells will be collected and submitted for analysis. Stimson shall notify DEQ five (5) working days in advance of sample collection.

If the dry wells are contaminated with PCBs, the dry wells will be cleaned out and re-sampled until it can be proven that the dry wells are clean and not contaminated with PCBs. If PCB contamination is detected in the stormwater ditch, then the stormwater ditch will be lined with the appropriate type impermeable liner, approved by DEQ before it is installed, to prevent water infiltration into the PCB contaminated materials below the excavated stormwater ditch elevations.

### **12.0 Long-Term Operation and Maintenance Plan for the On-Site Repository**

Stimson shall develop and have approved by DEQ, a Long-Term Operation and Maintenance Plan for the on-site repository. Stimson will submit a draft of the

monitoring plan to DEQ within forty-five (45) working days of the date of this work plan. At a minimum the plan should include but not be limited to; a vegetative cap, stormwater berm, and fence inspection; stormwater ditch and dry well monitoring schedule; repository monitoring well sampling schedule; and a weed control plan.

### **Health & Safety Plan**

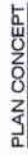
See Attachment A

### **Schedule**

The work described in this work plan will be completed within forty-five (45) days of the date of this work plan.







A  
D2

NOT TO SCALE



**Dry Kiln Repository**

Note: Thicker cap at edge required to elevate ditch for drainage

NOTE:

1. No portion of the drainage ditch overlies waste.
2. Drainage ditch sidewalls are at 1.5:1
3. Drainage ditch sidewalls to be lined with 4" minus crushed rock.

**Dry Kiln Repository**

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**Dry Kiln Repository**

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